

Application No.: 09/927,723

Docket N .: JCLA7513

In The Claims:

1. (currently amended) A method of forming a solid conductive rod, comprising:

providing a printed circuit board, wherein the printed circuit board includes an insulating core layer, a first conductive layer and a second conductive layer with the insulating core layer sandwiched between the first conductive layer and the second conductive layer;

forming a first opening ~~[over]~~ in the first conductive layer, wherein the first opening exposes a portion of the insulating core layer;

conducting a drilling operation to remove the exposed insulating core layer and form a second opening, wherein the second opening exposes a portion of the second conductive layer; ~~[and]~~

forming an electroplating mask to cover exposed surfaces of the first conductive layer and the second conductive layer, wherein the second opening and a portion of the second conductive layer remain exposed;

conducting an electroplating process using the second conductive layer, through the exposed portion, as [a negative] an electrode to fill the first and the second opening solidly with a conductive material;~~[*]~~

removing the electroplating mask; and

performing a planarizing process on the first conductive layer to remove a protruding portion of the filled conductive material.

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2. (original) The method of claim 1, wherein conducting the drilling operation includes drilling with a laser beam or a drill bit.

3. (original) The method of claim 1, wherein forming the first opening further includes:
forming a first patterned mask layer enclosing the printed circuit board,
wherein the first patterned mask layer has a third opening exposing a portion of the first
conductive layer; and
removing the exposed first conductive layer to form the first opening.

4. (original) The method of claim 3, wherein after forming the first opening, further
includes removing the first patterned mask layer.

5. (original) The method of claim 3, wherein material forming the first patterned mask
layer is selected from a group consisting of photoresist and photosensitive polyimide.

Claims 6-7. (cancelled)

8. (currently amended) The method of claim [6] 1, wherein material forming the
electroplating mask [first patterned mask layer] is selected from a group consisting of photoresist
and photosensitive polyimide.

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9. (original) The method of claim 1, wherein the material constituting the conductive layers includes copper.

10. (original) The method of claim 1, wherein conductive material includes copper.

Claim 11. (cancelled)

12. (currently amended) The method of claim ~~[11]~~ 1, wherein ~~[the protruding electroplated material]~~ the protruding portion of the filled conductive material is removed by sanding with a sanding machine.

13. (currently amended) The method of claim ~~[11]~~ 1, wherein ~~[the protruded electroplated material]~~ the protruding portion of the filled conductive material is removed by grinding with a wheel grinder.

14. (original) The method of claim 1, wherein the printed circuit board includes an integrated circuit carrier.

In The Drawings

FIGs. 1a, 1b, 2a, and 2b have been added with --PRIOR ART--.